

The 20 Series axial lead resistors are both durable and economical. They have all the electrical attributes of the more expensive 90 Series resistors, including an all-welded construction.

They offer the durability of a lead free conformal vitreous enamel coating and are ideal for computer, communications and industrial applications in which cost, quality and reliability are key considerations.

FEATURES

- Rugged vitreous enamel coating withstands high humidity and temperature cycling.
- Durable construction, recommended for industrial applications where reliability is paramount.
- All-welded construction.
- Flame resistant lead free vitreous enamel coating.

SPECIFICATIONS

Material

Coating: Conformal lead free vitreous enamel.

Core: Ceramic.

Terminals: Solder-coated axial lead.

Derating

Linearly from
100% @ +25°C to
0% @ +350°C.

Electrical

Tolerance: ±5% standard.
Other tolerances available.

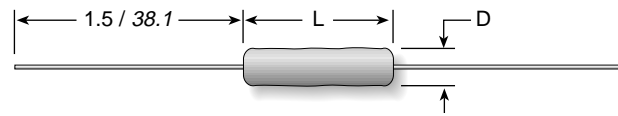
Power rating: Based on 25°C free air rating (other wattages available).

Overload:
Under 7 watts: 5 times rated wattage for 5 seconds.
7 watts and over: 10 times rated wattage for 5 seconds.

Temperature coefficient:
1 to 9.99 ohms: ±50 ppm/°C
10 ohms and over: ±30 ppm/°C

20 Series

Vitreous Enamel Conformal Axial Lead Wirewound Resistors
5% Tolerance Standard



Series	Wattage	Ohms	Dimensions (in. / mm)		Voltage	Lead ga.
			Length*	Diam.*		
21	1	0.1-6.1K	0.406 / 10.3	0.156 / 4.0	75	24
22	2	0.1-8.7K	0.406 / 10.3	0.219 / 5.6	65	20
23	3	0.1-22K	0.500 / 12.7	0.220 / 5.6	135	20
25	5	0.1-54K	1.000 / 25.4	0.276 / 7.0	330	20
27	7	0.1-118K	1.250 / 31.8	0.394 / 10.0	450	20
20	10	0.1-190K	1.844 / 46.8	0.394 / 10.0	720	20

12.5 watt size available on special order
*For units below 1Ω, add 15% to body diameter, 10% to body length.

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES

Ohmic value	Part No. Prefix → Suffix ↓	Wattage						Ohmic value	Part No. Prefix → Suffix ↓	Wattage						Ohmic value	Part No. Prefix → Suffix ↓	Wattage						
		1	2	3	5	7	10			1	2	3	5	7	10			1	2	3	5	7	10	
0.10	R10			✓	✓		✓	62	62R	✦	✦	✓	✓	✓	✦	✦	1,800	1K8	✓	✓	✓	✦	✦	✦
0.13	R13			✓	✓		✓	68	68R	✓	✓	✓	✓	✦	✓	✓	2,000	2K0	✦	✓	✓	✦	✓	✓
0.15	R15			✓	✓		✓	75	75R	✓	✓	✓	✓	✓	✓	✓	2,200	2K2	✓	✓	✓	✓	✦	✓
0.20	R20			✓	✓		✓	82	82R	✓	✓	✓	✓	✓	✓	✓	2,500	2K5	✦	✓	✓	✓	✦	✦
0.25	R25			✓	✓		✓	100	100	✦	✦	✦	✦	✓	✓	✓	2,700	2K7	✓	✓	✓	✦	✦	✓
0.30	R30			✓	✓		✓	120	120	✓	✓	✦	✓	✓	✓	✓	3,000	3K0	✓	✓	✦	✓	✦	✓
0.33	R33			✓	✓		✓	125	125	✓	✦	✓	✓	✓	✓	✓	3,300	3K3			✓	✓	✦	✦
0.50	R50			✓	✓		✓	150	150	✓	✓	✦	✦	✓	✓	✓	3,500	3K5			✓	✓	✓	✓
0.75	R75			✓	✓		✓	180	180	✓	✓	✓	✓	✓	✦	✓	3,900	3K9			✓	✓	✓	✓
1	1R0	✦	✦	✦	✦	✓	✓	200	200	✦	✓	✓	✓	✓	✓	✓	4,000	4K0			✦	✓	✓	✓
1.5	1R5	✓	✓	✓	✓	✓	✓	220	220	✦	✓	✓	✓	✓	✓	✓	4,500	4K5			✦	✓	✓	✓
2	2R0	✦	✓	✓	✦	✦	✓	225	225	✓	✦	✦	✦	✦	✦	✓	4,700	4K7					✓	✓
2.2	2R2	✓	✓	✓	✓	✦	✓	250	250	✓	✓	✓	✓	✓	✓	✓	5,000	5K0					✓	✓
3	3R0	✓	✓	✓	✓	✓	✓	270	270	✦	✓	✓	✓	✓	✓	✓	6,000	6K0					✓	✓
4	4R0	✓	✦	✓	✓	✦	✓	300	300	✓	✓	✓	✓	✓	✓	✓	6,800	6K8					✓	✓
5	5R0	✓	✓	✓	✦	✦	✦	330	330	✦	✓	✓	✓	✓	✓	✓	7,000	7K0					✓	✓
7.5	7R5	✦	✓	✓	✓	✓	✓	350	350	✓	✓	✦	✓	✓	✓	✓	7,500	7K5					✓	✓
10	10R	✓	✓	✓	✓	✓	✓	390	390	✓	✦	✓	✓	✓	✓	✓	8,000	8K0					✓	✓
12	12R	✦	✦	✓	✓	✓	✓	400	400	✦	✓	✓	✓	✓	✓	✓	9,000	9K0					✓	✓
15	15R	✓	✦	✓	✦	✓	✦	450	450	✦	✦	✓	✓	✓	✓	✓	10,000	10K			✦	✦	✓	✓
18	18R	✓	✦	✓	✓	✓	✓	470	470	✦	✓	✓	✓	✓	✓	✓	12,000	12K					✓	✓
20	20R	✓	✓	✓	✓	✓	✓	500	500	✓	✓	✦	✓	✓	✓	✓	13,000	13K					✓	✓
22	22R	✓	✓	✓	✓	✓	✓	560	560	✓	✓	✓	✓	✓	✓	✓	15,000	15K					✓	✓
25	25R	✦	✓	✓	✓	✓	✓	600	600	✓	✓	✦	✓	✓	✓	✓	17,000	17K					✓	✓
27	27R	✓	✓	✓	✓	✓	✓	680	680	✓	✓	✓	✓	✓	✓	✓	20,000	20K			✦	✦	✓	✓
30	30R	✦	✓	✓	✓	✓	✓	750	750	✓	✓	✓	✓	✓	✓	✓	22,000	22K			✦	✦	✓	✓
33	33R	✓	✓	✓	✓	✓	✓	800	800	✓	✦	✓	✓	✓	✓	✓	25,000	25K					✓	✓
35	35R	✓	✦	✓	✓	✓	✓	820	820	✓	✓	✓	✓	✓	✓	✓	30,000	30K					✓	✓
39	39R	✦	✓	✓	✓	✓	✓	900	900	✦	✓	✓	✓	✓	✓	✓	33,000	33K					✓	✓
40	40R	✓	✦	✓	✓	✓	✓	1,000	1K0	✦	✦	✦	✦	✓	✦	✓	35,000	35K					✓	✓
47	47R	✦	✓	✓	✓	✓	✓	1,100	1K1	✦	✦	✓	✓	✓	✓	✓	40,000	40K					✓	✓
50	50R	✓	✓	✓	✦	✓	✓	1,200	1K2	✓	✓	✦	✓	✓	✓	✓	50,000	50K					✓	✦
56	56R	✦	✓	✓	✓	✓	✓	1,500	1K5	✦	✓	✦	✓	✓	✓	✓							✓	✓

- ✦ = Most popular stock values
- ✓ = Stock values
- ✦ = Non-stock values subject to minimum handling charge per item

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.